

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

# SAFETY DATA SHEET

Version: v1

Revision Date: 2025-09-20

Print Date: 2025-09-26

## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1 Product identifiers

Product name : Cobalt sulfate heptahydrate  
Product Number : C118622  
Brand : aladdin  
CAS-No. : 10026-24-1

### 1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses : Laboratory chemicals, Manufacture of substances.

### 1.3 Company

Company : ALADDIN SCIENTIFIC CORPORATION  
Address : 14078 Meridian Parkway,  
Riverside, CA. 92518  
Telephone : +1 (833) 552-7181  
Fax : no data available

### 1.4 Emergency telephone number

CHEMTREC®, Inside the USA : 1-800-424-9300  
CHEMTREC®, Outside the USA :

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

#### GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Acute toxicity, Oral (Category 4), H302

Eye irritation (Category 2), H319

Respiratory sensitization (Category 1), H334

Skin sensitization (Category 1), H317

Germ cell mutagenicity (Category 2), H341

Carcinogenicity, Inhalation (Category 1B), H350i

Reproductive toxicity (Category 1B), H360F

Short-term (acute) aquatic hazard (Category 1), H400

Long-term (chronic) aquatic hazard (Category 1), H410

## 2.2 GHS Label elements, including precautionary statements

### Pictogram



Danger

### Signal word

### Hazard statement(s)

|      |                                                                           |
|------|---------------------------------------------------------------------------|
| H301 | Toxic if swallowed                                                        |
| H302 | Harmful if swallowed                                                      |
| H317 | May cause an allergic skin reaction                                       |
| H334 | May cause allergy or asthma symptoms or breathing difficulties if inhaled |
| H341 | Suspected of causing genetic defects                                      |
| H350 | May cause cancer                                                          |
| H360 | May damage fertility or the unborn child                                  |
| H400 | Very toxic to aquatic life                                                |
| H410 | Very toxic to aquatic life with long lasting effects                      |
| H413 | May cause long lasting harmful effects to aquatic life                    |

### Precautionary statement(s)

|           |                                                                               |
|-----------|-------------------------------------------------------------------------------|
| P261      | Avoid breathing dust/fume/gas/mist/vapors/spray.                              |
| P264      | Wash hands [and ...] thoroughly after handling.                               |
| P270      | Do not eat, drink or smoke when using this product.                           |
| P272      | Contaminated work clothing should not be allowed out of the workplace.        |
| P273      | Avoid release to the environment.                                             |
| P280      | Wear protective gloves/protective clothing/eye protection/face protection.    |
| P281      | Use personal protective equipment as required.                                |
| P284      | [In case of inadequate ventilation] Wear respiratory protection.              |
| P321      | Specific treatment (see ... on this label).                                   |
| P330      | Rinse mouth.                                                                  |
| P391      | Collect spillage.                                                             |
| P302+P352 | IF ON SKIN: wash with plenty of water.                                        |
| P304+P340 | IF INHALED: Remove person to fresh air and keep comfortable for breathing.    |
| P333+P313 | IF SKIN irritation or rash occurs: Get medical advice/attention.              |
| P362+P364 | Take off contaminated clothing and wash it before reuse.                      |
| P405      | Store locked up.                                                              |
| P501      | Dispose of contents/container to an approved waste disposal plant.            |
| P203      | Obtain, read and follow all safety instructions before use.                   |
| P301+P316 | IF SWALLOWED: Get emergency medical help immediately.                         |
| P301+P317 | IF SWALLOWED: Get medical help.                                               |
| P318      | if exposed or concerned, get medical advice.                                  |
| P342+P316 | If experiencing respiratory symptoms: Get emergency medical help immediately. |

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## 2.3 Hazards not otherwise classified (HNOC) or not covered by GHS

## SECTION 3: Composition/information on ingredients

### 3.1 Substances

|                  |                                                    |
|------------------|----------------------------------------------------|
| Synonyms         | : Cobalfous sulfate Cobaltous sulfate heptahydrate |
| Formula          | : $\text{CoSO}_4 \cdot 7\text{H}_2\text{O}$        |
| Molecular weight | : 281.10                                           |
| CAS No.          | : 10026-24-1                                       |
| EC-NO.           | : 233-334-2                                        |

| Component                          | Classification                                                                                                                                                                                                                                                                           | Concentration                             |
|------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|
| <b>Cobalt sulfate heptahydrate</b> | Acute Tox. 4; Eye Irrit. 2; Resp. Sens. 1; Skin Sens. 1; Muta. 2; Carc. 1B; Repr. 1B; Aquatic Acute 1; Aquatic Chronic 1; H302, H319, H334, H317, H341, H350i, H360F, H400, H410 Concentration limits: $\geq 0,01\%$ Carc. 1B, H350i; M-Factor - Aquatic Acute: 10 - Aquatic Chronic: 10 | PrimorTrace™, $\geq 99.99\%$ metals basis |

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

#### General advice

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

#### If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

#### In case of skin contact

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower. Consult a physician.

#### In case of eye contact

After eye contact: rinse out with plenty of water. Call in ophthalmologist. Remove contact lenses.

#### If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

### 4.2 Most important symptoms and effects, both acute and delayed

no data available

### 4.3 Indication of any immediate medical attention and special treatment needed

no data available

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

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**Suitable extinguishing media**Water spray. Carbon dioxide (CO<sub>2</sub>). Dry chemical. Chemical foam**Unsuitable extinguishing media**

no data available

**5.2 Special hazards arising from the substance or mixture**

Sulfur oxides, Cobalt/cobalt oxides. Not combustible. Ambient fire may liberate hazardous vapours.

**5.3 Advice for firefighters**

Wear self contained breathing apparatus for fire fighting if necessary.

**5.4 Further information**

no data available

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**SECTION 6: Accidental release measures****6.1 Personal precautions, protective equipment and emergency procedures**

Avoid generation and inhalation of dusts in all circumstances. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert.

**6.2 Environmental precautions**

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

**6.3 Methods and materials for containment and cleaning up**

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

**6.4 Reference to other sections**

For disposal see section 13.

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**SECTION 7: Handling and storage****7.1 Precautions for safe handling**

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Further processing of solid materials may result in the formation of combustible dusts. The potential for combustible dust formation should be taken into consideration before additional processing occurs. Provide appropriate exhaust ventilation at places where dust is formed.

**7.2 Conditions for safe storage, including any incompatibilities**

Tightly closed. Dry. Keep in a well-ventilated place. Keep locked up or in an area accessible only to qualified or authorized persons.

**7.3 Specific end use(s)**

no data available

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## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

### 8.2 Exposure controls

#### Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice.Wash hands before breaks and at the end of workday.

#### Personal protective equipment

##### Eye/face protection

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

##### Skin protection

Handle with gloves.Gloves must be inspected prior to use.Use proper glove removal technique (without touchinggloves outer surface) to avoid skin contact with this product.Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices.Wash and dry hands.

##### Body Protection

Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

##### Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100(US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls.If the respirator is the solemeans of protection, use a full-face supplied air respirator.Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

##### Control of environmental exposure

no data available

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

|                                                 |                                                                                                                    |
|-------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|
| a) Appearance                                   | form: Powder, Crystals and/or Chunks color: Orange to Very Dark Orange and Dark Red-Orange and Very Dark Red-Brown |
| b) Odour                                        | no data available                                                                                                  |
| c) Odour Threshold                              | no data available                                                                                                  |
| d) pH                                           | no data available                                                                                                  |
| e) Melting point/freezing point                 | 96.8°C                                                                                                             |
| f) Initial boiling point and boiling range      | no data available                                                                                                  |
| g) Flash point                                  | no data available                                                                                                  |
| h) Evaporation rate                             | no data available                                                                                                  |
| i) Flammability (solid, gas)                    | no data available                                                                                                  |
| j) Upper/lower flammability or explosive limits | no data available                                                                                                  |

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|                                           |                                                                                   |
|-------------------------------------------|-----------------------------------------------------------------------------------|
| k) Vapour pressure                        | no data available                                                                 |
| l) Vapour density                         | no data available                                                                 |
| m) Relative density                       | no data available                                                                 |
| n) Water solubility                       | Soluble in water and methanol, insoluble in ammonia, slightly soluble in ethanol. |
| o) Partition coefficient: n-octanol/water | no data available                                                                 |
| p) Auto-ignition temperature              | no data available                                                                 |
| q) Decomposition temperature              | no data available                                                                 |
| r) Viscosity                              | no data available                                                                 |
| s) Explosive properties N                 | no data available                                                                 |
| t) Oxidizing properties N                 | no data available                                                                 |

## 9.2 Other safety information

no data available

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

no data available

### 10.2 Chemical stability

Stable under recommended storage conditions.

### 10.3 Possibility of hazardous reactions

no data available

### 10.4 Conditions to avoid

no data available

### 10.5 Incompatible materials

no data available

### 10.6 Hazardous decomposition products

no data available

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

LD50 Oral - Rat - male and female - 1.330 mg/kg

(OECD Test Guideline 401)

**Skin corrosion/irritation**

Skin - In vitro study Result: No skin irritation - 15 min (OECD Test Guideline 439)

**Serious eye damage/eye irritation**

Eyes - Rabbit Result: Eye irritation (OECD Test Guideline 405)

**Respiratory or skin sensitisation**

Patch test: - Guinea pig (OECD Test Guideline 406)

**Germ cell mutagenicity**

Suspected of causing genetic defects. Test Type: In vitro mammalian cell gene mutation test Test system: Mouse lymphoma test Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 476 Result: negative

**Carcinogenicity**

no data available

**Reproductive toxicity**

May damage fertility.

**Specific target organ toxicity - single exposure**

no data available

**Specific target organ toxicity - repeated exposure**

no data available

**Aspiration hazard**

no data available

**Additional Information**

Repeated dose toxicity - Rat - male and female - Oral - 90 Days - NOAEL (No observed adverse effect level) - 3 mg/kg

RTECS: GG3200000

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Symptoms of an acute cobalt intoxication: diarrhoea, loss of appetite, drop in body temperature, drop in blood pressure. Toxic effect on kidneys (proteinuria, anuria), heart, and pancreas.

Other dangerous properties can not be excluded.

This substance should be handled with particular care.

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## SECTION 12: Ecological information

### 12.1 Toxicity

Toxicity to fish semi-static test LC50 - Pimephales promelas (fathead minnow) - 1,866 mg/l - 96 h

(US-EPA)

Toxicity to daphnia and other aquatic invertebrates static test LC50 - Ceriodaphnia dubia (water flea) - 0,39 mg/l - 48 h

(US-EPA)

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Toxicity to algae static test ErC50 - Pseudokirchneriella subcapitata - 0,095 mg/l - 72h

(OECD Test Guideline 201)

Toxicity to bacteria static test EC50 - activated sludge - 120 mg/l - 30 min

(OECD Test Guideline 209)

### 12.2 Persistence and degradability

Biotic/Aerobic Result: - Not readily biodegradable.

### 12.3 Bioaccumulative potential

no data available

### 12.4 Mobility in soil

no data available

### 12.5 Results of PBT and vPvB assessment

no data available

### 12.6 Other adverse effects

no data available

## SECTION 13:

### 13.1 Disposal considerations

#### Product

Offer surplus and non-recyclable solutions to a licensed disposal company.

#### Contaminated packaging

Dispose of as unused product.

## SECTION 14: Transport information

### DOT (US)

UN number: 3077

Packing group: III

Class: 9

Proper shipping name:

Reportable Quantity(RQ): no data

Poison Inhalation Hazard: no data

ENVIRONMENTALLY HAZARDOUS

available

available

SUBSTANCE, SOLID, N.O.S. (Cobalt(II)

sulfate heptahydrate)

Environmental Hazards: Yes

### IMDG

UN number: 3077

Packing group: III

EMS-No: no data available

Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Cobalt(II) sulfate heptahydrate)

### IATA



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UN number: 3077                      Packing group: III                      Class: 9

Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Cobalt(II) sulfate heptahydrate)

### SECTION 15: Regulatory information

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

### SECTION 16: Other information

|                  |                                                                                                                                                     |
|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| Prepared By      | Regulatory Affairs<br>ALADDIN SCIENTIFIC CORPORATION<br>Email: <a href="mailto:QualityAssurance@aladdinsci.com">QualityAssurance@aladdinsci.com</a> |
| Creation Date    | 10-Jan-2024                                                                                                                                         |
| Revision Date    | 20-Sep-2025                                                                                                                                         |
| Print Date       | 26-Sep-2025                                                                                                                                         |
| Revision Summary | SDS sections updated v1                                                                                                                             |

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